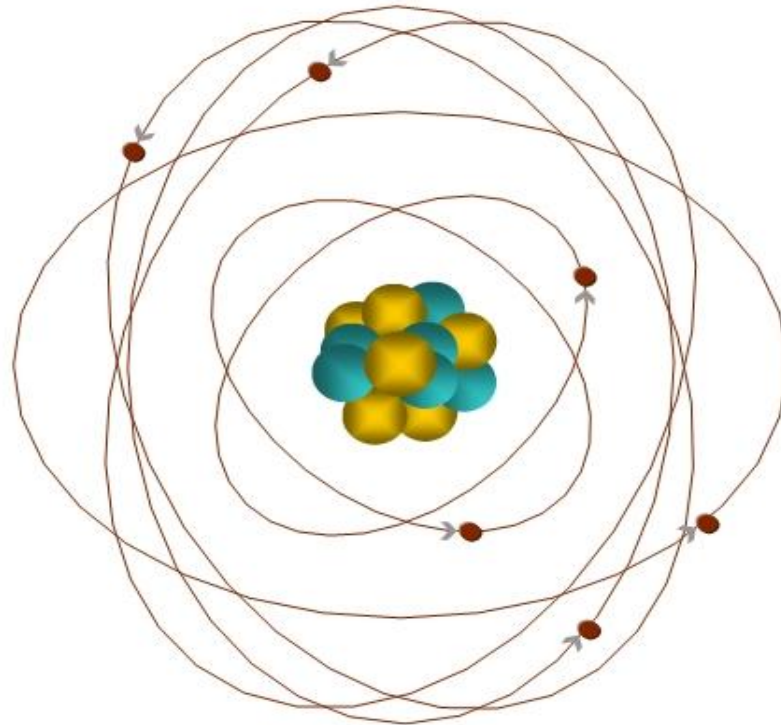
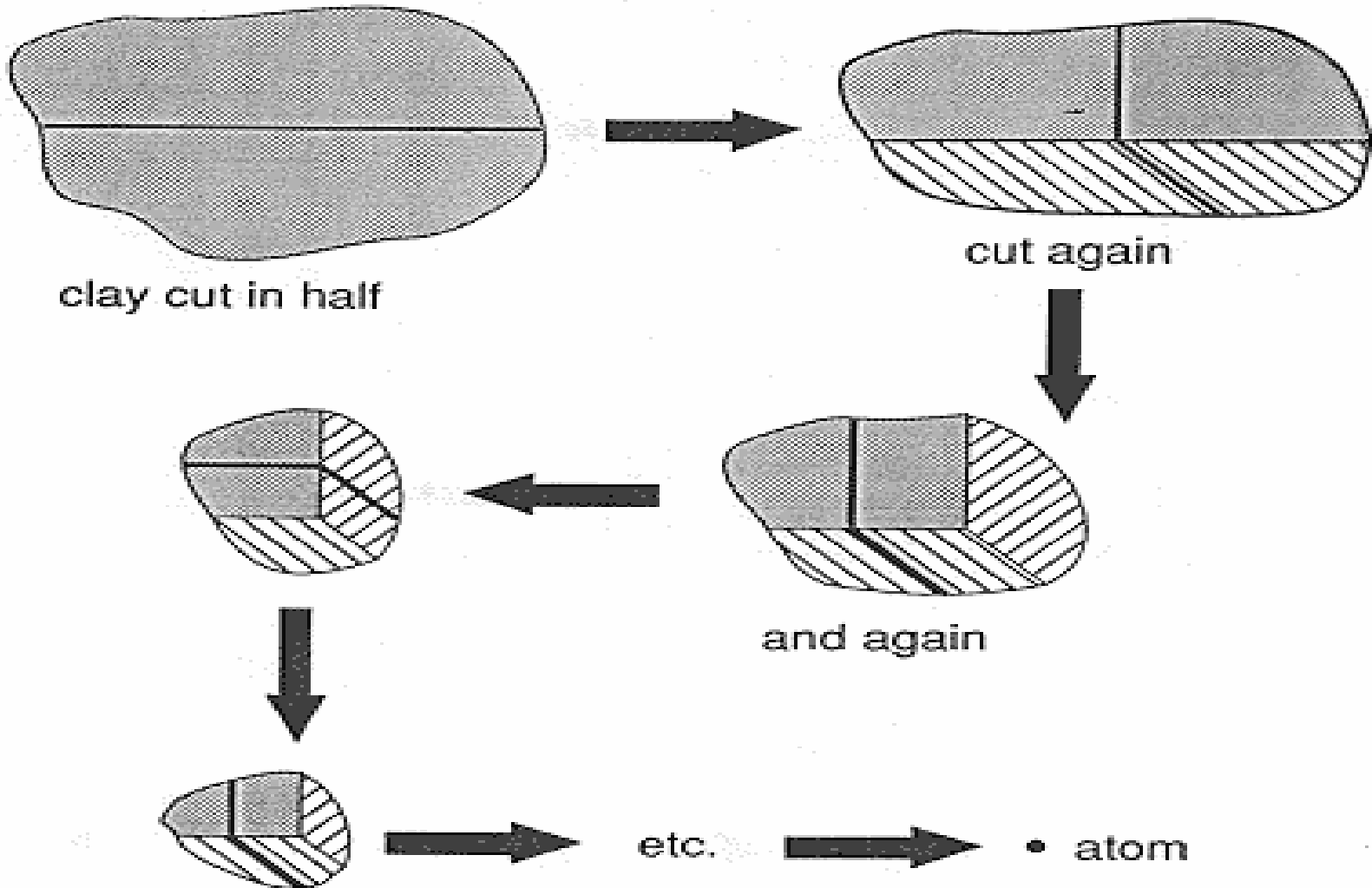


# The structure of the Atom



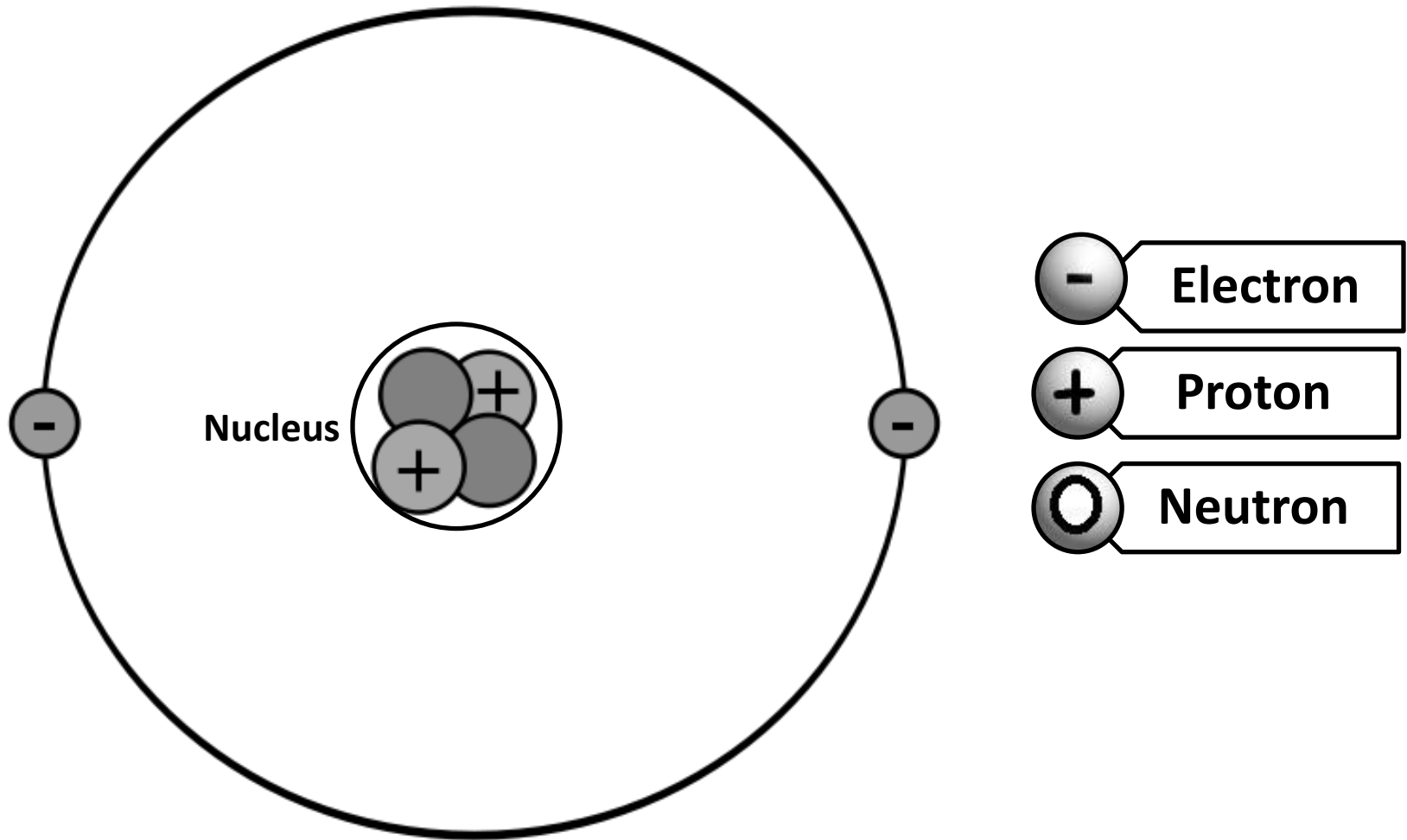
Randima Piyumalie Galhenage  
**Department of Chemistry and Bio chemistry**

# History

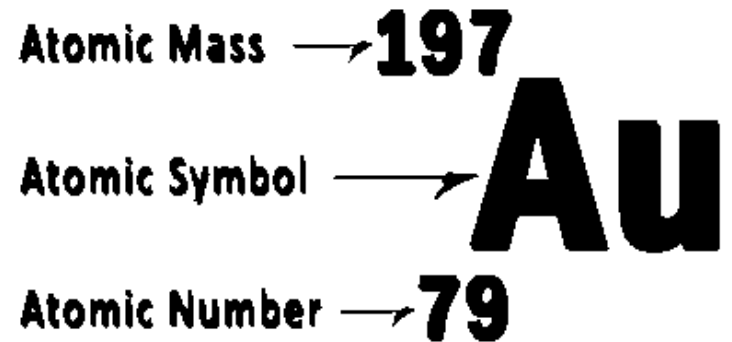
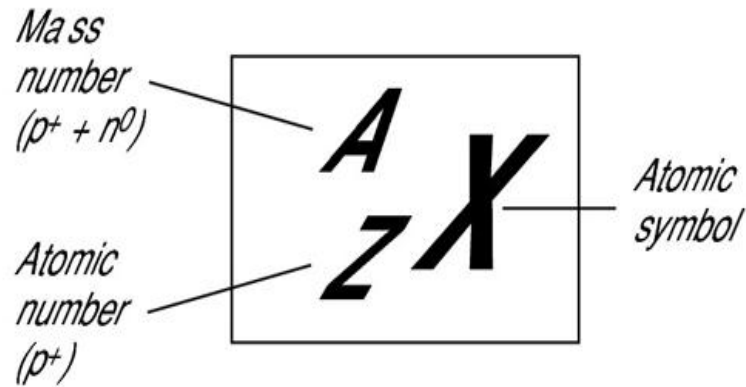


Democritus' concept of the atom

# Structure of the ATOM



# How many electrons, protons and neutrons ?



Number of protons =  $Z$

Number of Electrons = Number of protons =  $Z$

Number of neutrons =  $A - Z$

**Q. The atomic number(Z) of an element is 11 and the atomic mass(A) is 23,**

**a)Identify the element**

**b)Find out the number of electrons, protons and neutrons**

1.01 H 1																	4.00 He 2
6.94 Li 3	9.01 Be 4											10.81 B 5	12.01 C 6	14.01 N 7	16.00 O 8	19.00 F 9	20.18 Ne 10
22.99 Na 11	24.31 Mg 12											26.98 Al 13	28.09 Si 14	30.97 P 15	32.06 S 16	35.45 Cl 17	39.95 Ar 18
39.10 K 19	40.08 Ca 20	44.96 Sc 21	47.90 Ti 22	50.94 V 23	52.00 Cr 24	54.94 Mn 25	55.85 Fe 26	58.93 Co 27	58.70 Ni 28	63.55 Cu 29	65.38 Zn 30	69.72 Ga 31	72.59 Ge 32	74.92 As 33	78.96 Se 34	79.90 Br 35	83.80 Kr 36
85.47 Rb 37	87.62 Sr 38	88.90 Y 39	91.22 Zr 40	92.91 Nb 41	95.94 Mo 42	97.00 Tc 43	101.07 Ru 44	102.90 Rh 45	106.40 Pd 46	107.87 Ag 47	112.40 Cd 48	114.82 In 49	118.69 Sn 50	121.75 Sb 51	127.60 Te 52	126.90 I 53	131.30 Xe 54
132.90 Cs 55	137.34 Ba 56		178.49 Hf 72	180.95 Ta 73	183.86 W 74	186.20 Re 75	190.20 Os 76	192.20 Ir 77	195.09 Pt 78	196.97 Au 79	200.59 Hg 80	204.37 Tl 81	207.19 Pb 82	208.98 Bi 83	210.00 Po 84	210.00 At 85	222.00 Rn 86
223.00 Fr 87	226.00 Ra 88		261.00 Rf 104	262.00 Db 105	266.00 Sg 106	264.00 Bh 107	269.00 Hs 108	268.00 Mt 109	269.00 Uun 110	272.00 Uuu 111	277.00 Uub 112	281.00 Uut 113	285.00 Uuq 114	287.00 Uup 115	289.00 Uuh 116	291.00 Uus 117	293.00 Uuo 118

138.91 La 57	140.12 Ce 58	140.91 Pr 59	144.24 Nd 60	145.00 Pm 61	150.35 Sm 62	151.96 Eu 63	157.25 Gd 64	158.92 Tb 65	162.50 Dy 66	164.93 Ho 67	167.26 Er 68	168.93 Tm 69	173.04 Yb 70	174.97 Lu 71
227.00 Ac 89	232.04 Th 90	231.00 Pa 91	238.03 U 92	237.00 Np 93	244.00 Pu 94	243.00 Am 95	247.00 Cm 96	247.00 Bk 97	251.00 Cf 98	254.00 Es 99	257.00 Fm 100	258.00 Md 101	255.00 No 102	256.00 Lr 103